

REMARKS

Claim 14 was rejected under 35 USC 112, first paragraph as containing subject matter which was not enabled by the specification. Claims 1-10 and 12-15 were rejected under 35 USC 103(a) as being unpatentable over Yamamuro (US 6,099,359) in view of Capp et al. (US 5,060,372). Claim 11 was rejected under 35 USC 103(a) as being unpatentable over Yamamuro in view of Capp in further view of Cooper et al (US 5,609,491).

Claim 14 rejected under 35 USC 112, first paragraph

Claim 14 was rejected under 35 USC 112, first paragraph as containing subject matter which was not enabled by the specification. Specifically, the Examiner found that the phrase "lead element is a pad" to be inadequately defined within the specification. The Applicant respectfully traverses this rejection. The Applicant notes that the term "pad" is just as well known and understood as the term "pin" that was not objected to in claim 13. The term "pad" is understood in the art to follow the classical definition of the term, namely: a flat surface. This is a well understood geometric configuration and therefore is adequately supported and enabled by the specification. The Applicant, therefore, respectfully requests reconsideration of this claim.

Claims 1-10 and 12-15 were rejected under 35 USC 103(a)

Claims 1-10 and 12-15 were rejected under 35 USC 103(a) as being unpatentable over Yamamuro (US 6,099,359) in view of Capp et al. (US 5,060,372). The Applicant respectfully traverses these rejections and requests reconsideration in light of the above amendments. The Applicant respectfully calls the Examiner's attention to the fact that the leads in both the Yamamuro reference as well as the Capp reference extend considerably outside the housing 5,25 respectively before reaching the carrier strip. Furthermore, the Applicant calls the Examiner's attention to the fact that the argued coining area of Yamamuro as asserted by the Examiner are described within the reference as corners used to prevent detachment of the lead from the housing during operation. The present invention, however, teaches the use of a first coining area 20 covered by the fence 24 to absorb the energy associated with the separation of the carrier strip 16 at the second coining area 24. This limitation is neither taught, nor rendered obvious, by either reference either alone or together. The fact that the leads in both cited references extend

well beyond their respective housings indicates that the coining (if in fact that is what is shown) in Yamamuro would do nothing to reduce the stress transferred to the lead during separation of the carrier strip. The Applicant, therefore, requests reconsideration of these claims.

In addition, the Applicant has amended the claims for further clarification. The claims have been amended to reflect the second coining area 22 is positioned adjacent the fence 24 and outside of the connector housing 18. This structure is clearly illustrated in Figure 1 and 2 of the present application as originally filed and therefore do not constitute new matter. In further support, the Applicant calls the Examiner's attention to claim 2 as originally filed. The Applicant notes that the fence element 24 could not very well be extended to cover a portion of the second coining area 22 without the second coining area being positioned adjacent to the fence 24 and outside the connector housing 18 as shown in Figure 1. It is the double coining combined with the fence covering the first coining and the carrier strip positioned immediately outside the fence that allows the carrier strip of the present invention to be separated without introducing any flexibility to the lead element. This would not be achieved through the simple combination of the cited references nor would it be rendered obvious as neither reference discusses this problem.

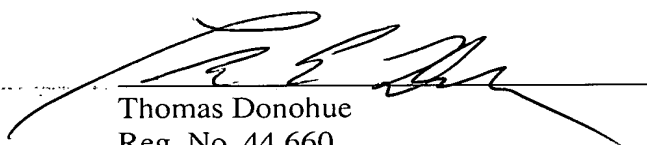
The Applicant has additionally added two claims adding the limitation that the lead portion 12 and the carrier strip portion 16 are positioned within a common plane. This is not new matter as it is clearly illustrated and thereby adequately described by the specification by way of figures 1 and 2 as originally filed. The Applicant notes that it is in this single plane arrangement that the separation of the carrier strip carries the most danger in increasing the vibrational characteristics of the lead portion and thereby rendering it difficult for use with wirebonding. The dual coining combined with the position of the fence element and carrier strip in relation to the dual coining allows a low vibration to be imparted on such a planar structure. Multi-curved structures, such as that taught by Yamamuro are not as susceptible to vibrational damage and therefore do not teach the necessity for the structures or methods taught and claimed by the present invention. In light of the amendments, new claims, and above arguments, the Applicant respectfully requests reconsideration of the above claims.

Claim 11 was rejected under 35 USC 103(a)

Claim 11 was rejected under 35 USC 103(a) as being unpatentable over Yamamuro in view of Capp in further view of Cooper et al (US 5,609,491). The Applicant respectfully traverses the Examiner's rejection and requests reconsideration of the above claim. The Applicant respectfully reincorporates the above arguments regarding the validity of the underlying base claim. The Applicant further asserts that the unique double coin/fence arrangement of the present invention is not taught by any of the cited references. In addition, the Applicant asserts that the use of this double coin/fence arrangement with a wire bond provides a unique benefit of an easily formed and stable wire bondable lead that is not taught by any of the cited references nor rendered obvious. Cooper is not even directed to the use of a carrier strip that needs to be separated from the leads. Cooper, therefore, simply teaches wirebonding to leads may be done. It is not combinable with the cited references to arrive at the stable lead element of the present invention. The Applicant therefore asserts it would have not been obvious to combine Cooper with Yamamuro and Capp to arrive at the present claim limitations. The Applicant, therefore, requests reconsideration of this claim.

Should the Examiner have any questions or comments that would place the application in better condition for allowance, the Examiner is respectfully requested to call the undersigned attorney.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Claim 1 has been replaced with the following:

1. A wire bondable connector assembly comprising:
at least one lead element including a lead portion and a carrier strip portion;
a first coining area formed in said lead portion of said lead element;
a second coining area formed in said lead element and positioned between said lead portion and said carrier strip portion; and
a connector housing formed around said lead portion, said connector housing including said fence element covering the said first coining area such that said carrier strip portion can be separated from said lead portion without affecting the stability of said lead portion, said second coining area positioned adjacent said fence element outside of said connector housing.

Claim 9 has been replaced with the following:

9. A method of securing wire bondable leads in a connector housing comprising:
coining a lead element in a first coining area and a second coining area;
forming a connector housing over a lead portion of said lead element;
forming a fence portion over said first coining area such that said second coining area is positioned adjacent said fence element outside of said connector housing; and
separating a carrier strip portion from said lead portion in the location of said second coining area.

New Claims 16 and 17 have been added.

16. A wire bondable connector assembly as described in claim 1, wherein said lead portion and said carrier strip portion are positioned within a common plane.